



AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-36 (Cancelled)

Claim 37 (Currently Amended): A process for the manufacture of polymer coated composite substrate, said process comprising:

applying a chemically crosslinkable composition onto a surface of a compressible mat;
~~crosslinking the chemically crosslinkable composition without heating to form a chemically crosslinked polymer coating on the surface of the compressible mat, wherein the chemically crosslinkable composition form~~ forms a chemically crosslinked polymer matrix
~~crosslinks when, or as, at the point of application as the composition is being applied to the surface of the compressible mat; and~~

compressing and heating the ~~crosslinked coating matrix~~ and the compressible mat to form the polymer coated composite substrate.

Claim 38 (Original): The process of claim 37 wherein the compressible mat further comprises a sheet of paper which is glued to the surface of the mat.

Claim 39 (Currently Amended): The process of claim 38 wherein the ~~chemically crosslinked polymer coating matrix~~ matrix is formed on the paper.

Claim 40 (Currently Amended): The process of claim 37 wherein the polymer coated composite substrate is paper and the ~~chemically crosslinked polymer coating matrix~~ matrix is formed on a fiber mat and compressed with the mat as part of a papermaking process.

Claim 41 (Currently Amended): The process of claim 37 wherein the chemically ~~crosslinked~~
~~polymer~~ crosslinkable composition is ionically crosslinked.

Claim 42 (Currently Amended): The process of claim 37 wherein the chemically ~~crosslinked~~
~~polymer~~ crosslinkable composition is covalently crosslinked.

Claim 43 (Currently Amended): The process of claim 41 wherein the ~~ionically crosslinked~~
~~polymer~~ composition has thermosetting functionality.

Claim 44 (Currently Amended) A process for the manufacture of polymer coated composite
substrate, said process comprising:

applying an ionically crosslinkable composition onto a surface of a compressible mat;
~~ionically crosslinking the ionically crosslinkable composition to form an ionically~~
~~crosslinked polymer coating on the compressible mat~~, wherein the ionically crosslinkable
composition ionically crosslinks to form an ionically crosslinked polymer matrix when, or as, at
~~the point of application as the composition is being applied to the surface of the compressible~~
mat; and

compressing and heating the crosslinked coating matrix and the mat to form the polymer
coated composite substrate.

Claim 45 (Original): The process of claim 44 wherein the compressible mat further comprises a
sheet of paper which is glued to the surface of the mat.

Claim 46 (Currently Amended) The process of claim 45 wherein the ~~ionically crosslinked~~
~~polymer coating~~ matrix is formed on the paper.

Claim 47 (Currently Amended): The process of claim 44 wherein the polymer coated
composite substrate is paper and the ~~ionically crosslinked polymer coating~~ matrix is formed on a
fiber mat and compressed with the mat as part of a papermaking process.

Claim 48 (Currently Amended) The process of claim 44 wherein the ~~ionically crosslinked-~~
~~polymer crosslinkable composition~~ has thermosetting functionality.

Claim 49 (Currently Amended): The process of claim 37, further comprising applying a top
coat composition over the ~~applied, crosslinked composition~~ matrix.

Claim 50 (Previously presented): The process of claim 37, further comprising applying a
release coat composition.

Claim 51 (Previously presented): The process of claim 37, wherein the chemically
crosslinkable composition has a solids content from about 30% to about 80% by weight.

Claim 52 (Previously presented): The process of claim 37, wherein the chemically
crosslinkable composition has a solids content from about 20% to about 70% by weight.

Claim 53 (Currently Amended): The process of claim 44, further comprising applying a top
coat composition over the ~~applied, crosslinked composition~~ matrix.

Claim 54 (Previously presented): The process of claim 44, further comprising applying a
release coat composition.

Claim 55 (Withdrawn): A process for the manufacture of polymer coated composite
substrate, said process comprising:

 applying an crosslinkable composition onto a heated press platen;
 crosslinking the crosslinkable composition to form an crosslinked polymer coating,
wherein the crosslinkable composition crosslinks at the point of application as the composition is
being applied to the surface of the press platen; and
 compressing the crosslinked coating and a compressible mat to form the polymer coated
composite substrate.

Claim 56 (Withdrawn): The process of claim 55, wherein the crosslinkable composition is chemically crosslinkable, and the crosslinked polymer coating is a chemically crosslinked polymer coating.

Claim 57 (Withdrawn): The process of claim 55, wherein the crosslinkable composition is ionically crosslinkable, and the crosslinked polymer coating is an ionically crosslinked polymer coating.

Claim 58 (Withdrawn): The process of claim 55, wherein the crosslinkable composition is covalently crosslinkable, and the crosslinked polymer coating is a covalently crosslinked polymer coating.

Claim 59 (Withdrawn): The process of claim 55, wherein there is a layer of release agent on the heated press platen before application of the crosslinkable composition.

Claim 60 (Withdrawn): The process of claim 55, wherein there is a layer of top coat composition on the heated press platen before application of the crosslinkable composition.

Claim 61 (Withdrawn): The process of claim 60, wherein the top coat composition comprises a latex top coat composition.

Claim 62 (Withdrawn): The process of claim 55, wherein the compressible mat has been pretreated with an adhesive composition.